

*The Editor of the Edinburgh Medical & Surgical Journal
from the Author*

THE
QUARANTINE LAWS,

THEIR
ABUSES AND INCONSISTENCIES.

A LETTER,

ADDRESSED TO THE

Rt. Hon. SIR JOHN CAM HOBHOUSE, Bart. M.P.

PRESIDENT OF THE BOARD OF CONTROL,

&c. &c. &c.

BY

ARTHUR T. HOLROYD, ESQ.

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QUARANTINE LAWS, THEIR ABUSES AND INCONSISTENCIES.

To the Right Hon. SIR JOHN CAM HOBHOUSE, Bart. M.P.

PRESIDENT OF THE BOARD OF CONTROL, ETC. ETC.

SIR,

I HAVE recently returned from Egypt, Syria, and the Mediterranean, where, amongst other subjects, that of the present system of sanatory regulations occupied my attention. I observed that these restrictions, apparently based on the idea of the contagious nature of plague, were inflicted so arbitrarily, and imposed so unjustly, that I determined to ascertain how far circumstances warranted the inconvenience to which merchants and travellers are subjected by an irksome imprisonment, and a lengthened detention of their goods and baggage for the assumed purpose of purification.

If I can shew you, which I hope to be able to do in these pages, that quarantine is useless and inefficient, and that if the present laws may not be entirely repealed, at least they require and will admit of great modification without endangering the public safety; if I can demonstrate that the plague has passed the most careful barriers, and spread under the most rigid precautions; and lastly, if I can prove that these regulations press unequally upon persons in the same quarantine, I feel that I shall then have a claim to draw your attention towards endeavouring to make some alteration in the present system, more especially as these laws affect all who proceed from India to England by the way of the Red Sea, Egypt, and Malta.

I shall have to relate many circumstances connected with myself individually; but in doing so I must be acquitted of wishing you to regard my particular case, for I shall merely state inconveniences and annoyances which must be borne by every one who visits the Mediterranean. The restrictions which were placed upon me are nearly similar to those which all in quarantine in the Levant must undergo, and therefore circumstances which happened to myself may be considered as occurring generally and indiscriminately.

In the month of June I left Damascus, and on the afternoon of the 9th of the same month I arrived at the Pines, about a mile and a half from Beyrout; here I found a *Cordon Sanitaire*, the governor having determined that every one leaving Beyrout should undergo at this place a quarantine of seven days. After some little delay I was permitted to proceed to the town, and ascertained that the plague had existed there a month; that during that period thirty persons had been attacked, and of these ten had died. Of the ten, seven were reported to be Greeks and three natives of Beyrout. I also learned that of the thirty attacked at least two-thirds were Greeks. It was reported that no case of plague had occurred in the town for six days preceding the 10th of June. At this time the plague was existing at Alexandria, and merchandise and passengers from thence were put into the Lazzaret at Beyrout. The quarantine was regulated in a manner most extraordinary. Vessels of war from Alexandria had to perform a quarantine of fourteen days, including the voyage, upon their arrival at Beyrout. So that if seven days were occupied in the voyage, seven days of purification were necessary at the Lazzaret, where the plague was existing; and thus many were obliged to pass from the comforts of a pure and healthy vessel, as, for instance, from one of H. B. M. Steamers, to a confined and close building, the focus of plague during the spring. Merchantmen arriving in the port of Beyrout from infected places, as Alexandria, were compelled to undergo a more extended quarantine; and passengers from these vessels were confined in the Lazzaret for twenty-one days, because, as I was informed, the authorities supposed that merchan-

dise carried the infection of plague longer than the baggage of passengers who had made a similar voyage in a government steamer or a vessel of war.

I may mention that at the time these sanatory regulations were in force at Beyrout, there was a quarantine upon vessels leaving this port and arriving at Alexandria, where the plague was committing much greater ravages. The period was twenty-one days for passengers arriving by steamers or vessels of war, and twenty-five for those who had come by vessels carrying merchandise. And now let me call your particular attention to these facts.

1. A quarantine of seven days at the Pines, on leaving Beyrout; so that a person was considered at the end of this time sufficiently pure to proceed to Damascus, an uninfected city, without endangering the public health. The journey from Beyrout, or the Pines, to Damascus, is performed with ease in three days; and if we add this to the seven days quarantine, a person might reach Damascus in ten days after becoming infected at Beyrout. But the same person might reach many parts of Mount Lebanon on the day of his being admitted to pratique; he might accomplish the journey to Deir el Kammar, the residence of the Emeer Besheer, for instance, in seven hours after leaving the Pines.

2. A quarantine of fourteen days on steamers or vessels of war, and twenty-one days on merchantmen arriving at Beyrout from Alexandria.

3. A quarantine of twenty-one days on steamers or vessels of war, and twenty-five days on merchantmen arriving at Alexandria from Beyrout.

From this it will appear that the health of the inhabitants of Damascus, a city entirely free from plague, was considered as a matter of less importance than the well-being of the people of Beyrout and Alexandria, towns in which the plague actually existed; and we come to this conclusion, that in proportion to the purity of the town arising from the absence of plague, were facilities in the same ratio afforded to assist its propagation and extension by granting a less period of quarantine, and therefore a more direct intercourse. But this is not the greatest absurdity arising from the establish-

ment of sanatory regulations at Beyrout. The quarantine of seven days at the Pines was not enforced upon all equally, and only a little interest with the authorities was required for avoiding detention. A teskeré or order from the Government, procured through the medium of a consulate, was considered equivalent to seven days' purification; and I was informed that the mules and muleteers which brought a noble lord and suite into Beyrout, during the time of the plague, were allowed, after having communicated most completely with the town, to pass the Cordon Sanitaire, the British Consul having obtained a teskeré for them to proceed without the penalty of undergoing quarantine.

The plague had existed for some time at a village in Mount Lebanon, near Tripoli, previous to its appearance at Beyrout. This village had not been placed in quarantine. Only one or two cases had appeared at Tripoli, and the malady had not extended to any other part of Mount Lebanon. No precautions had been taken to prevent infected persons from this village entering Beyrout; and the appearance of the plague at Beyrout was not attributed to communication with the infected village, but it was supposed to have been imported from Cyprus by some Greeks, as it shewed itself first amongst them in the Lazzaret.

I mentioned that I arrived in Beyrout on the evening of the 9th of June. I avoided all communication with the town, and the day following, the 10th, I embarked on board H. B. M. Steamer Megæra. On the morning of the 11th we left for Alexandria, where we arrived on the 13th. The Megæra was placed in quarantine. On the 15th, I addressed the following note to M. Chasseaud, H. B. M. V. Consul, at Alexandria:—

LETTER No. 1.

[COPY.]

SIR,

As Mr. Andrews and I wish to disembark from H. B. M. Steamer Megæra, will you oblige us by information on the following points:—

Is it necessary to perform Quarantine?

If necessary, in the Lazzaret or where?

What length of Quarantine is required?

Is the time during which we have been on board the Steamer, since leaving Beyrout, allowed as part of our Quarantine?

If we are to be consigned to the Lazzaret, can you provide us with a boat to convey us, or how are we to procure one?

We shall feel obliged by your favouring us with a reply to the above inquiries at your earliest convenience.

I remain,

Your obedient Servant,

ARTHUR T. HOLROYD.

H.B.M. Steamer Megæra,

Port of Alexandria, June 15, 1838.

LETTER No. II.

[copy.]

M. CHASSEAUD'S REPLY.

Alexandria, 15th June, 1838.

SIR,

The Quarantine you had to perform was twenty-one days in all, to count from your arrival; two days having now elapsed, you have yet nineteen days left. You have to perform it at the Old Harbour, in the Health Office, or near it, where you will see a flag-post (a very good and convenient place I understand). You are to land there when you like, but in the Steamer's boat; as no shore boat or boatmen can communicate with you, since you are in Quarantine. This is all the information I could obtain for you from the Board of Health.

I remain, in haste, Sir,

Your most obedient and humble Servant,

G. CHASSEAUD.

Arthur T. Holroyd, Esq.

Accordingly, the day following, Mr. Andrews and I went into quarantine in the Health Office, having left the Megæra in a *shore boat*, and not in the *steamer's boat*. And in this

we were towed to our place of destination. Not being satisfied with the reply of M. Chasseaud, we memorialized the Board of Health, as follows :—

The PETITION of

EDWARD J. ANDREWS *and* ARTHUR T. HOLROYD, *Englishmen,*
to the Board of Health of Alexandria,

SHEWETH,

That your Petitioners arrived in Beyrout from Damascus, where they had been residing twenty-two days, on Saturday evening, June 9th, and remained in strict Quarantine until the following evening when they embarked on board H.B.M. Steamer Megæra.

That all the chief cabin passengers in the Megæra (of whom your Petitioners formed two) had observed the most rigid Quarantine.

That the number of cases of Plague at Beyrout up to the departure of the Megæra did not exceed thirty, and that it was almost entirely confined to Greeks.

That your Petitioners arrived at Alexandria on Wednesday Morning, June 13th, and on the day but one following, one of your Petitioners corresponded with M. Chasseaud, H. B. M. V. Consul, respecting the Quarantine, when that gentleman informed your Petitioners that it was necessary “to perform a Quarantine of twenty-one days, commencing from the time of the arrival of the Megæra at Alexandria.”

That the Megæra is a British Steamer of War, and does not carry merchandise. That British ships of war always perform less Quarantine than merchant vessels; and that the Quarantine on board the ships of his Highness Mahomed Ali Pacha always commences at the moment of leaving the infected port.

That at present the Quarantine at Beyrout, upon vessels from Alexandria, is fourteen days, including the days of the passage between the two places.

Your Petitioners therefore most earnestly entreat the Board of Health to take into its earliest consideration the facts mentioned in this Petition, with a view of curtailing so tedious a Quarantine as twenty-three days, more especially as it is

universally allowed that the influence of the Plague at this season of the year* is always upon the decline.

EDWARD J. ANDREWS,
ARTHUR T. HOLROYD.

Health Office, Alexandria, June 18th, 1838.

We mentioned in the prayer of the petition that the period of our incarceration was twenty-three days, because, from M. Chasseaud's letter, the quarantine was to commence from the time of the arrival of the *Megæra* at Alexandria, and not from the period of her departure from Beyrout. I despatched the above petition to Mr. Thurburn, H. B. M. Consul at Alexandria, with a request that he would forward it to the Board of Health; and I understood that he delivered it to Colonel Campbell, H. B. M. Consul General for Egypt and Syria, and urged him to use his influence with the Board to obtain, if possible, a partial remission of our imprisonment. The Board of Health met June 19th; and in the afternoon of the same day Mr. Robert Thurburn called at the Parlatorio and informed us that the Board had decided that our quarantine should count from the time of the *Megæra*'s leaving Beyrout, and that we were to undergo twenty-one days' quarantine from that period.

It is rather extraordinary that M. Chasseaud either should have replied to my note without conferring with the Board of Health, or that it should have given him such incorrect information. For he says that Mr. Andrews and myself are "to perform twenty-one days in all, to count from our arrival (at Alexandria);" whereas the Board of Health says that "we are to perform twenty-one days, reckoning from the time of the *Megæra*'s sailing from Beyrout." And, again, M. Chasseaud says "we are to land in the steamer's boat, as no shore boat or boatmen can communicate with us, since we are in quarantine." The commander of the *Megæra*, however, could not spare a boat, and we were obliged to apply to the Health Office for a shore boat, which we obtained, and in which we

* When the plague rages in Egypt and Syria it most commonly appears in the spring, and it has been noticed that it decreases towards the summer, and very generally disappears altogether by St. John's day, the 24th of June.

were towed to the place of confinement. We were fifteen in number doomed to imprisonment, amongst whom Mr. Andrews and I were the only Europeans. Our quarters consisted of four small rooms on a first floor, and one was allotted to my friend and myself. Our place of exercise was a terrace, but from its situation, was exposed so much to the heat of the sun that we were only able to use it before sunrise and after sunset. As it might be supposed, from being placed in such a confined abode, several of us suffered in health, and I as well as one of the Arabs was attacked with intermittent fever, malaria being generated partly from a nuisance which existed on the premises, and partly from animal and vegetable decomposition on the sea shore. I was informed that the Board of Health had shewn a great indulgence in permitting us to pass our quarantine here instead of in the Lazzaret, where the accommodation is said to be more limited and the inconveniences greater than in the house where we were detained. During our quarantine the plague was raging in the arsenal of Alexandria and in three Egyptian ships of war; and persons ill with the plague were daily brought from the latter to a jetty which projected into the sea from the Office of Health. Here they remained sometimes for two or three hours, awaiting the arrival of the physician; and when he had decided that they were labouring under the malady they were removed to the Parlatorio, and allowed to remain there until the evening, when they were borne off to the Lazzaret. Almost every case proved fatal in consequence of the extreme neglect and gross inattention shown by the attendants to the sufferers.

Soon after the appearance of the plague at Beyrout, Hekekyan Effendi (now Hekekyan Bey) accompanied by Mucktar Bey, then Minister of Public Instruction, arrived there from Alexandria in a vessel of war belonging to Mahomed Ali Pacha. The plague at this time was, as I have already said, raging at the latter place. They left the ship and proceeded to the shore, intending to land; but Mahmood Bey, the Governor of Beyroot, having received intelligence of their intention, came to the shore and requested them to remain in their boat. He then retired, but

shortly returned with a guard of soldiers to accompany them, and see they did not communicate with the people of the town; and this guard conducted Hekekyan and Mucktar Beys through the town to Mahmood Bey's house, a distance of about a quarter of a mile. The two Beys entered the Governor's divan, and sat on chairs; coffee was brought, placed upon the floor, and each took a cup. The three Beys were in consultation for some time respecting the best means of preventing the spread of the plague, and eventually they made arrangements for placing the Cordon around Beyroot. Afterwards Hekekyan and Mucktar Beys returned to the shore, accompanied by the escort, and embarked for their vessel. Here they remained eight days, at the end of which time, the mules having arrived, they landed outside the Cordon and went to Deir el Kammar, the residence of the Emeer Besheer, thence to Cornail, the Pacha's coal mines, and, after being in Mount Lebanon five days, returned to Beyrout, embarked outside the Cordon, and proceeded to their vessel. They sailed without loss of time for Alexandria, arrived there seven days afterwards, and were admitted to pratique immediately.

The two Beys communicated with Alexandria, where the plague was raging, previous to their sailing for Beyrout, and it appears they were not placed in quarantine upon their arrival in the latter port. They most completely communicated with Beyrout, where the plague was reported to be, and yet were not placed in quarantine upon their return to Alexandria. And lastly, they most completely communicated with Deir el Kammar and other parts of Mount Lebanon, the inhabitants of which places had daily intercourse with Beyrout after the existence of plague was discovered, and previously to the establishment of the Cordon. Fear, therefore, might reasonably have been entertained of the two Beys having received the infection of plague, and of their giving it to others. Besides, after communicating with Beyrout, they remained on board eight days, and then landed and spent five days in Mount Lebanon; and as the quarantine at the Pines was of only seven days' duration, persons might have passed the prescribed period

of detention and communicated with Deir el Kammar and other places about the same time that these emissaries of the Pacha reached these parts. As the quarantine at Alexandria from Beyrout was twenty-one days for ships of war, ought not the Beys to have been incarcerated upon their return?

It appeared to me that the best way to obtain the most correct information respecting the quarantine laws and the doctrine of contagion was to propose questions to parties who had been interesting themselves respecting the quarantine regulations in the Levant. I was also anxious to obtain information from medical men who had had opportunities of seeing the plague in Egypt during a number of years, but especially the dreadful epidemic of 1835-36, when it was reported that not less than 200,000 persons fell victims to the disease in Egypt within a few months.

From Mr. Thurburn, H. B. M. Consul at Alexandria, I obtained all the information I could desire respecting the Board of Health in that place, and I think it but due to that gentleman to add that, as far as I could learn, he, more than any other Consul at Alexandria, has opposed the unwarrantable proceedings and resisted the oppressive restrictions of that Board. Mr. Thurburn is desirous of remedying the existing evils; but then he has unfortunately men to deal with who are strongly prejudiced in favour of the present system, and anxious to prevent rather than prepare the way for the introduction of mild and rational measures, which might answer every purpose of guarding against what they deem the contagious character of plague, without sacrificing the health of the public. From Dr. Gregson, who was for many years surgeon-in-chief to the Naval, Military, and Civil Hospital of Alexandria; from Mr. Abbot, his colleague in that institution; and from Dr. Pruner, chief physician in 1836 to the Central Hospital at Cairo, and now chief physician to the Hospital of Kassr-el-ain, I procured a mass of interesting matter which I cannot but think deserving of most particular attention, and, as all these documents must suffer by abridgement or condensation, I insert them at length.

ROBERT THURBURN, Esq. H. B. M. Consul, Alexandria.

QUESTION 1. When was the Board of Alexandria first instituted?

A. It was talked about in 1831. Was organized in 1832-33. It began to act in the month of July 1834. The Plague of 1834-35 disorganized it, and it was re-organized about the middle of 1835.*

2. Of whom is it composed? and are the members of it self-elected or appointed by the Government?

A. It is composed of a select number of European Consuls, chosen by the body of Consuls, and acting as their deputies under the sanction of Government.

3. In the Epidemic of 1835, or subsequently, has the Board of Health attended to the cleanliness and ventilation of the houses of the poor, and has it at any time recommended the distribution of food?

A. The Board of Health has directed its attention to the cleanliness and ventilation of the houses of the poor since the Epidemic of 1835, but I am not aware that it has ever recommended the distribution of nourishment.

4. Has it recommended at any time the making of drains in the city for conveying the soil from the houses?

A. The old drains have been cleared out and repaired by their directions, and some new ones recommended in the town which are not yet executed.

5. Has it enforced orders for cleaning the streets, removing nuisances, whitewashing, fumigating the houses, &c.?

A. Whitewashing and fumigating are practised by order of the Board of Health when the plague has manifested itself. The streets are cleaned and nuisances partially removed under the superintendence of the Bash Aga, or Commissary of Police, who is attached to the Board of Health for the execution of its orders.

* The answer to this question was furnished me by Mr. George Gliddon, American Consul at Cairo.

6. Has it collected evidence from Medical men respecting the Plague, or acted upon suggestions made by them? (In this question I do not allude to evidence given by Dr. Grassi, the Physician to the Lazzaret.)

A. The collection of evidence respecting the Plague has never, so far as I know, been one of the objects attended to by the Board of Health.

7. Has it made any inquiries of Medical men, who have had practice in the treatment of Plague, to ascertain the time which elapses between the exposure to infection and the development of the disease, preparatory to establishing Quarantine?

A. Not any.

8. In establishing Quarantine upon what data has the Board of Health acted?

A. Upon the regulations adopted by the Quarantine establishments in Europe.

9. What essential good has resulted from the establishment of the Board of Health at Alexandria?

A. The only good that, in my opinion, has resulted from the establishment of the Board of Health of Alexandria, is in its having directed the attention of Government to improving and ventilating the habitations of the poorer classes, making drains, &c. but these improvements have hitherto been on too limited a scale to produce any very essential advantage.

10. Is it in communication with other Boards of Health in the Pacha's dominions, or elsewhere?

A. It is not in communication with any other Boards of Health out of the Pacha's dominions, but corresponds with that in Candia, and with the Sanatory Establishments in Syria. It has its own agents at Rosetta, Damietta and Aboukir.

Alexandria, August, 1838.

THOMAS LESSLIE GREGSON, M.D.

QUESTION 11. Were you in Alexandria at the commencement of the Plague of 1835, and subsequently when the disease was raging?

A. Yes, doing duty as Surgeon in Chief to the Naval, Military, and Civil Hospital several months during that period.

12. Did you see much of the disease?

A. Yes; my duty obliged me to examine the cases brought to the Hospital of Observation in conjunction with the Physician in Chief at that period, and alone during the two years and a half following, being Surgeon in Chief and Director.

13. Did you ascertain if the Plague was sporadic in the first instance in that year, or if it was imported?

A. From all I saw I had no reason to doubt its being sporadic.

14. Do you believe that Egypt is ever entirely free from Plague?

A. I believe Egypt never free from Plague.

15. How do you believe that the disease is propagated?

A. I believe it originates from miasmatic influence, from finding its ravages ceasing about the 20th of June, there being no longer humidity to favour the decomposition of animal or vegetable substances.

16. What do you mean by infection?

A. I consider infection to mean being exposed to miasma, and being affected by its influence.

17. Can you mention any particular instances of persons about a plague patient escaping an attack of the disease?

A. Many; amongst others Clot Bey, Gaëtani, Laidlaw, myself, &c. besides threescore of our Hospital servants who were shut up with these patients; so little did these men think of the danger, that, when the disease moderated, they grumbled much at being sent on board again; they were

sailors taken *pro tempore*, preferring waiting on such patients to serving on board. No extra mortality was observed amongst grave diggers or carmen. Madame Portalis was ill three days, some dozens of her friends had visited her; she died on the 4th of Plague; none of her family or friends were attacked. Dr. Bella's wife died of Plague on the 4th day and had been so visited; besides many other cases.

18. Have you ever seen the disease propagated by contagion?

A. I am not aware of having seen one case contagious, but on investigation have found many so reported to be false.

19. Do you believe that communication by actual contact will produce the disease?

A. I feel confident that contact will not produce the disease. Indeed those who saw most of the disease feared it the least. We dreaded the Quarantine more.

20. Is the Plague ever epidemic?

A. Certainly so?

21. Have you observed at any time cases of Plague which could not be traced to communication with infected persons?

A. Yes, on board the Ships of War, containing from 1,200 to 1,500 men, which lay in port two months and a half in Quarantine. During this time cases occurred on board almost each ship every twelve or fifteen days: had it been contagious it would have spread.

22. What time do you consider elapses between the reception of the infection of Plague and the development of the disease—I allude to the latent stage of the disease?

A. I should think from the fifth to the seventh day.

23. When the Plague is at Alexandria is it usual for the Europeans to observe Quarantine?

A. Many Europeans do so, or pretend so to do.

24. Have you known any instances of Europeans who, keeping Quarantine and observing every precaution, have been attacked with Plague?

A. Yes; Madame Portalis, M. Tourneau, &c. To account for the death of the latter they said he had opened a letter imperfectly fumigated. None of their visitants were attacked.

25. Do you consider Quarantines a sufficient safeguard against the disease?

A. No, I consider them inefficient, and that from their oppressive and partial operation they have, instead of diminishing, propagated the disease; and hundreds have been sacrificed by being torn from their homes and thrust into crowded overcharged and tainted Lazzarets.

26. Were there Cordons Sanitaires around Alexandria during the continuance of the Plague?

A. Yes.

27. Had they the effect of preventing the disease from extending?

A. No; the disease spread around to Damietta, Rosetta, and Cairo.

28. Have you been much about Plague patients immediately under your care?

A. From my situation as chief and member of the Council of Health, I saw most of the cases brought to the Hospital. And in their houses, many.

29. Have you handled them, examined their pulse &c.?

A. I have treated and handled many.

30. Have you ever made any post mortem examinations of persons who have died of Plague?

A. I have made few post mortem examinations, the Commission opposing this. Before the disease broke out, a number of the Pacha's oxen were seized with a malady, of which above one hundred died in a few days. I was sent to investigate and report on this epidemic. On examination I found gastritis, enteritis in the most intense degree, so much so that I have found extensive gangrene in oxen that have only been observed ill twelve hours. They had also large buboes.

This I reported Plague, and caused them to be interred deeply.

31. Have you ever had the Plague ?

A. No.

32. Were any medical men at Alexandria, who had been attending patients suffering from Plague, attacked with the disease ?

A. Several : amongst others Lardoni, inspector deputy ; Riego, Lossignuoli ; the former a great contagionist, taking all precautions ; the two last had been several months in daily attendance on Plague cases, these were non-contagionists.

33. Have you known the Plague to have been communicated by sexual intercourse ?

A. No ; I have known many cases to the contrary.

34. Were nurses and attendants upon Plague patients frequently attacked with the disease ?

A. No ; as I have stated in answer No. 17.

35. Have you known attendants in Hospitals who have been attacked with Plague, and who have not communicated it to the patients of the Hospital ?

A. Yes ; amongst others a servant belonging to our hospital was attacked ; he was a black. We were shut up in Quarantine, one thousand in number. Other three of our servants were attacked, the last on the seventh day of our being shut up. These four had their huts together, and had been infected at the same time. Whoever has seen an Arab hut could easily conceive this happening, even in Typhus. The last was my own Infirmerian, and carried my dressing ease &c. during the morning visit ; he, in my own division, must have touched at least two hundred patients, and indirectly the whole Hospital by communicating with the other Infirmerians ; observing his eyes to have the Plague character, I examined him and found the bubo then large ; severe symptoms came on the same day ; he was saved. Other two of the four died. No other ease ensued ; I believe much to the mortification of my friends of the Commission, who had been pro-

phesying daily concerning us. They gave us thirty-seven days.

36. Do you think that good nourishment, proper ventilation and cleanliness, have any influence in preventing the extension of Plague?

A. These means I believe to be the only efficient ones for eradicating or preventing the extension of it. I believe the comparative immunity enjoyed by those keeping Quarantine depends on their enjoying these advantages; just as in Europe, those so situated are nearly exempt from the ravages of Typhus.

37. Are you aware of any means, such as ventilation, white-washing the houses of the lower orders, distribution of food to the poor, cleansing the streets, making of drains to convey away the soil from the houses, removing nuisances &c., having been adopted by the Government in Alexandria in 1835, or subsequently, when the Plague was raging?

A. Yes, several of these means were adopted, but by the oppressive manner in which they were executed, they did more harm than good.

38. Was this done by order of the Board of Health?

A. I believe one of the originators was M. Lesseps, French Vice-Consul, who visited many of the huts endeavouring to inspire confidence. Latterly he was so disgusted that he retired from the commission.

39. Do you consider the Board of Health of Alexandria efficient?

A. No, I consider it inefficient, expensive even to prodigality, tyrannical in its operations. It has even solicited the dismissal of zealous medical men because they had reported the tricks of their emissaries. I may mention the case of Dr. Bowring and Clot Bey sailing for Syria, its keeping back the announcement of a case of Plague till they sailed, although the case was known three days before; they were not out of sight when the case was declared. I sailed for Syria a few hours afterwards and had eighteen days Quarantine. I know the Commission hastened the departure of Clot Bey, he himself having told me that he meant to stop in Alexandria other four days. So much for its honesty of executive.

40. Has any material good resulted from it—I mean as connected with the Plague?

A. I am not aware of much good it has done. All that it has done could have been done without it.

41. Do you approve of vessels going into Quarantine at Alexandria when the Plague is raging there?

A. Although I believe, when the Plague is raging, sailors would not willingly enter buildings where infection existed, yet moderate precautions I consider useful. I believe it the acme of absurdity in the Commission to order vessels into Quarantine, so far as the town is interested.

To the above evidence Dr. Gregson has appended the following interesting particulars:—

On arriving at Beyrout I was put in Quarantine: during this time the Lazzaret and town were alarmed by the Doctor of the Commission reporting a Greek sailor from Cyprus attacked by plague; luckily the Commission consisted of the Governor, who was a well educated Turk, a paid Inspector, and the Doctor. This case caused a sensation, as the trade with Cyprus is great. The Governor called in another doctor, who said it was not plague. During this perplexity the Governor, hearing I was in the Lazzaret (he had known me well in Egypt), sent for me to have my opinion; I found the patient suffering from an extensive gangrene with sloughing, caused by a severe contusion, produced by a blow from the cable breaking when they were heaving it up. Astonished at the ignorance, or rather malicious conduct of the Doctor, (he had an interest, in being paid so much for visiting people from infected parts) I gave my opinion in reprobation of the Doctor's conduct; he was immediately discharged. Had he belonged to the Alexandrian Commission, it would have screened him and persecuted those who differed from him. Our Consul Mr. Thurburn is an honourable exception; he did not belong to it, and has interfered to prevent British subjects from being dragged to the Lazzaret. In Alexandria I have been sent by order to inspect various cases in the Lazzaret. The Commission Doctors got on these occasions two Doctors to side with them; for these services one

is now Commissioner Doctor at Alexandria, the other so at Damietta, viz. Couloutchi and Reggio.

Burntisland, Fifeshire, December 14, 1838.

HENRY ABBOT, Esq.

QUESTION 42. Were you in Alexandria at the commencement of the Plague of 1835?

A. Yes.

43. Did you see much of the disease?

A. Yes.

44. Did you ascertain if the Plague was sporadic in the first instance in that year, or if it was imported?

A. It was said to have been imported, but I believe that it always exists more or less in the country.

45. Then I am to understand that you believe Egypt never to be entirely free from Plague?

A. That is my belief.

46. How do you believe that the disease is propagated?

A. By infection.

47. What do you mean by infection?

A. By miasma in the atmosphere, or by miasma from the diseased person.

48. Have you ever seen the disease propagated by contagion?

A. Never.

49. Do you believe that communication by contact will produce the disease?

A. No; not by actual contact; but it must be borne in mind, that when one approaches a Plague patient, one is within the sphere of infection.

50. Have you ever observed cases of Plague which could not be traced to communication with infected persons?

A. Yes, certainly; I will give an instance.—In the year 1835 I was attached to the Aboukir, 80 gun ship, when the Plague broke out—she had been in Quarantine about six weeks and no Plague had shown itself. The first person attacked was a black, who had been taken on board in the month of June or July; he was a prisoner from Nablous and embarked at Jaffa, at neither of which places was there any Plague; being a prisoner of war he was not allowed any communication with the shore.

51. What time do you consider elapses between the reception of the infection of Plague and the development of the disease—I allude to the latent stage of the disease?

A. I cannot positively say, but I should think about fifteen days.

52. When the Plague is at Alexandria, is it usual for the Europeans to keep Quarantine?

A. Yes. But the male portion of the family go out, and they profess to keep Quarantine when out, by keeping everybody at a certain distance with a stick.

53. Have you known any instances of Europeans, who, keeping Quarantine and observing the precautions you have just mentioned, have been attacked with Plague?

A. Yes.

54. Then you do not consider these precautions a sufficient safeguard against the disease?

A. No; because I consider the disease infectious, and not contagious.

55. Were there Cordons Sanitaires around Alexandria during the continuance of the Plague?

A. Yes.

56. Did they have the effect of arresting the disease?

A. No.

57. Have you been much about Plague patients immediately under your care?

A. Yes.

58. Have you handled them, examined their pulse &c.?

A. Yes, invariably.

59. Have you ever made any post mortem examinations of persons who have died of Plague?

A. No; I was not allowed, though I should have had no objection to have done it.

60. Have you ever had the Plague?

A. No.

61. Were any Medical men who had been attending patients suffering from Plague, attacked with the disease at Alexandria?

A. Yes; but the greater part were attending Plague cases, themselves being in Quarantine, like the Europeans just mentioned.

62. Have you known the Plague to have been communicated by sexual intercourse?

A. No; but a case came to my knowledge of a man having connexion with a female ill with the Plague, and he escaped the disease.

63. Were nurses and attendants upon Plague patients frequently attacked with the disease?

A. No, very rarely; a lady, subsequent to the epidemic of 1835, who died of Plague in Alexandria, was attended assiduously by her daughters, and they all escaped the disease.

64. Have you known attendants in hospitals who have been attacked with Plague, and who have not communicated it to the patients of the hospital?

A. Yes; a male nurse to the marine hospital was attacked with Plague in 1836, whilst on duty in a medical ward; he slept in the ward, and remained in bed until 12 o'clock on the following day, when he was ordered by the medical men of the division to be removed into the venereal ward; he remained in the venereal ward until sunset, when it was declared a case of Plague and he was removed to the Lazzaret, where he died the following day. Several other servants of the hospital were subsequently attacked, but not a

single patient upon whom these persons were attending. All these servants resided in a village near the hospital, where the Plague at that time existed.

65. Do you think that good nourishment, proper ventilation and cleanliness, have any influence upon the Plague?

A. Decidedly so; and I am of opinion that the health of the men in the ships of war of the Pacha was attributable to these causes, because the Plague made great ravages in the transports, where the same precautions were not observed.

66. Are you aware of any means, such as ventilation, white-washing the houses of the lower orders, distribution of food to the poor, cleansing the streets &c., having been adopted by the Government in Alexandria in 1835, or subsequently, when the Plague was raging?

A. The houses of the poor are so constructed as not to admit of ventilation. When the Plague appeared in a village, the village was surrounded by soldiers, and the women compelled to turn out everything; many of their chattels were burnt, and their clothes were washed and some of their huts fumigated. No food was distributed to the poor, and no extra precautions were adopted for cleansing the streets.

67. Was this done by order of the Board of Health?

A. Yes.

Cairo, July 27, 1838.

DR. PRUNER.*

QUESTION 68. Were you in Cairo during the Plague of 1835 or 1836?

A. I was chief Physician to the Central Hospital of Cairo in 1836.

69. Did you see much of the disease?

A. Yes; in town and in the Hospital I saw 140 cases.

70. Did you ascertain if the Plague was sporadic in the first instance in that year, or if it was imported?

* Dr. Pruner is a German Physician settled at Cairo.

A. The Plague of 1835 was imported in the first instance, by the brother of Ciglio, a Maltese Physician—transported by him to another brother—by the second brother to a black woman—from her to a Greek neighbour &c.

71. Do you believe Egypt ever to be entirely free from Plague?

A. Never; as long as the conditions which predominate now in the climatical exposition and in its interior disposition continue.

72. How do you believe that the disease is propagated, by contagion or infection?

A. By both.

73. Do you know any particular case of the persons about a Plague patient escaping an attack of the disease?

A. Yes; a Greek lady, M. B * * * * *, who died of the Plague, was visited and attended by about forty persons during the attack, without any precaution, and not one of them took the disease. A Jewish lady, who died a few days afterwards of the Plague, had been in contact with many persons, who did not take the disease.

74. Have you ever seen the disease propagated by contagion?

A. No, I never saw it; but I believe it is capable of being propagated by contagion.

75. Is the disease ever epidemic?

A. Yes; sometimes, but not always.

76. Do you believe that communication by contact, as in the itch, will produce the disease?

A. Not always; very seldom, if the contact be slight, and there is no epidemical disposition for the Plague.

77. Have you observed at any time cases of Plague, which could not be traced to communication with infected persons?

A. Very frequently; I have seen it annually in the Capital of Egypt.

78. What time do you consider elapses between the reception of the infection of Plague, and the development of the disease—I allude to the latent stage of the disease?

A. A few hours when it is contagious; but the extreme limit of the latent stage in my opinion is five days.

79. When the Plague is at Cairo, is it usual for the Europeans to keep Quarantine?

A. Yes. Formerly it was so generally, but is less so now.

80. Have you known any instances of Europeans, who keeping Quarantine, and observing every precaution, have been attacked with the disease?

A. Yes; several. An Italian, who kept strict Quarantine in a house on the Canal in Cairo, and who was attacked with the disease and died.

81. Do you consider Quarantine a sufficient safeguard against the disease?

A. Not at all. It can only be a safeguard in countries where the disease is not endemical.

82. Were there any Cordons Sanitaires around Cairo during the Plague?

A. They were placed between Alexandria and Cairo, after the Plague was declared in the latter place.

83. Did they have the effect of arresting the disease?

A. Not at all.

84. Have you been much about Plague patients immediately under your care?

A. Yes.

85. Have you handled them, examined their pulse &c.?

A. All.

86. Have you ever made any post mortem examinations of persons who have died of Plague?

A. Many in the Hospital.

87. Have you ever had the Plague ?

A. No.

88. Were any medical men who had been attending patients suffering from Plague attacked with the disease at Cairo ?

A. Yes, two classes of medical men—old exhausted men, and young men freshly arrived from Europe. Of the old men, Dr. Marrucci and Dr. Dussap. Amongst the young, Dr. Foureade and Dr. Leopold; and they were almost all attacked after the first visits to plague patients. Dr. Foureade after the first dissection.

89. Have you known the Plague to have been communicated by sexual intercourse ?

A. No.

90. Were nurses and attendants upon Plague patients frequently attacked with the disease ?

A. They were during Epidemical Plague.

91. Have you known attendants in Hospitals who have been attacked with Plague and who have communicated the disease to the patients in the Hospital ?

A. No.

92. Do you think that good food, proper ventilation and cleanliness, have any influence upon the disease ?

A. Yes.

93. Are you aware of any means, such as ventilation, whitewashing the houses of the lower orders, distribution of food to the poor, cleansing the streets &c. having been adopted by the Government in Cairo in 1835, or subsequently when the Plague was raging ?

A. After the Plague was finished the Government removed the surface of the earth in the principal streets. They removed the covering of the streets placed from house to house. They prohibited burial in the interior of the town. They did not attend to the ventilation of the houses. They did not distribute food to the poor. They did not cleanse the houses of the poor.

94. Was there a Board of Health at this time at Cairo?
A. Yes.

95. Was this done by order of the Board of Health?
A. Yes.

96. Of whom was the Board of Health composed at this time?
A. Clot Bey, Gaëtani Bey (now with Mahomed Ali Pacha),
Dibagi (now dead), and Destouches.

Cairo, July 28, 1838.

Now let us see what inferences are to be drawn from the evidence of these gentlemen. Mr. Thurburn tells us, that the Board of Health of Alexandria recommended and enforced certain regulations for improving the houses of the poor in order to prevent the extension of the plague. These orders provided for cleaning and ventilation, and generally for the improvement of the city by repairing the drains; but he also adds that “these improvements have hitherto been on too limited a scale to produce any very essential advantage.”* One most important particular appears to have been entirely disregarded: I mean the distribution of nourishment. Poverty exists to a great extent in Mahomed Ali Pacha’s dominions; and in few countries, with such a small population, will be observed so many objects of misery. The squalid unhealthy appearance of the lower orders points out the sufferings they endure—mentally from fear of the conscription and the enormous exactions, and bodily from the limited quantity of food they with difficulty obtain. As a natural consequence of their impoverished condition, they are predisposed to receive the miasmatic influence of plague; and it is but too true, that they are the most frequent victims of this destructive disease. The plague last spring and summer was confined to persons employed in the arsenal and sailors in three ships of war in the harbour. These had been impressed into the Pacha’s service, and suffered severely from nostalgia; for whenever a man is so unfortunate as to be taken for the arsenal, navy, or army, he is

* Vide Quest. and Ans. 9.

an exile for ever from his home, his wife, and his family. Nothing can exceed therefore the dread of conscription or impressment, for among no people is the attachment to their soil so strong.

The inefficiency of the Board of Health of Alexandria is remarkable in another point of view, inasmuch as it has never collected any evidence respecting the plague, to show how the disease might be diminished or eradicated by improving local circumstances and the physical condition of the people. Surely medical men, who have seen much of the plague, ought to have been summoned to give all the information they possessed about the malady, with a view, if possible, to lessen the present oppressive and tyrannical laws; and certainly ought to have been consulted previously to the establishment of sanatory regulations. What says Mr. Thurburn on this subject? In the answer to question 6, he distinctly remarks—"The collection of evidence respecting the plague has never, so far as I know, been one of the objects of the Board of Health." But what follows? The replies to questions 7 and 8 deserve great attention. I asked Mr. Thurburn, "Has it (the Board of Health) made any inquiries of medical men, who have had practice in the treatment of plague, to ascertain the time which elapses between the exposure to the infection of plague and the development of the disease, preparatory to establishing quarantine?" And what is his answer. "Not any!" This reply I must say startled me; but the answer to the next question is still more extraordinary. I ask, "In establishing quarantine, upon what data has the Board of Health acted?" And I am told "Upon the regulations adopted by the quarantine establishments of Europe." Now if ever there were a place calculated for obtaining information on this subject, that place is Egypt, and especially Alexandria and Cairo. Among those who have seen a great deal of this pestilential disorder we have Drs. Gregson, Abbot, Laidlaw, Pruner, Clot Bey, Gaëtani Bey, Bulard, &c.; and yet with such a host of talent the Board of Health thought and still think it unnecessary and useless to benefit by their extensive knowledge and local experience. The whole ques-

tion of quarantine, if quarantine laws ought to exist at all, hinges upon one single point, I mean the length of time that elapses between the exposure to the infection of plague, or the miasmatic influences which produce it, and the appearance of the disease afterwards. And though the Board of Health is established in the very focus of plague, it has never directed its attention to this essential circumstance; nay, it actually draws all its rules of action from those places where plague rarely exists, it proceeds on data furnished by persons who have never had any experience, and most likely have never seen the disease; and thus, having collected materials from parts of Europe where plague is almost a stranger, it legislates upon sanitary measures in Egypt, where the elements of plague are perpetually present.

I have mentioned, at the commencement of this letter, that sanitary regulations do not affect all equally; I have shown how they were avoided in the cases of Hekekyan and Mucktar Beys, and the muleteers of a noble lord; and I shall presently shew how they were relaxed in favour of the children of Reshid Pacha, whilst he and his suite were performing quarantine at Malta. I may here however add another instance of inexplicable partiality, in which the President of the Board of Health at the time was H. B. M. Consul General for Egypt and Syria. In Aug. 1838, H.B.M. Steamer *Firefly* arrived at Alexandria from Beyrout, with a bill of health from the latter place, stating that no case of plague had occurred posterior to the 5th of July, a period of thirty-six days. She was placed in quarantine for twenty-one days, though the plague was still existing in Alexandria. The commander, Lieut. Pearse, R.N. applied to Colonel Campbell to use his influence for obtaining pratique, and protested against such unwarrantable restrictions. I understand that Col. Campbell replied that the bill of health of the *Firefly* was not a clean one, because forty days had not expired subsequently to the last case of plague appearing at Beyrout; and that if the subject was brought formally and officially before the Board of Health he should oppose the application of admission to pratique. This was all as it should have been, provided Alexandria had been

free from plague; but is it not absurd that the crew of a vessel coming from a port thirty-six days free from plague, and arriving at a port where the disease is actually raging, should be required to perform twenty-one days quarantine before communication is permitted with the infected town? But mark what happens afterwards: an English barque leaves Beyrout two days after the Firefly, and before the expiration of forty days from the occurrence of the last case of plague, and proceeds to Alexandria, where she is admitted to pratique immediately upon her arrival. Perhaps Col. Campbell (the President of the Board of Health at this time) can give some explanation why the Firefly was placed in quarantine, and the English barque not; and why an exception was made in one instance, and not in the other?

I thought it advisable to propose questions to Doctor Gregson, Mr. Abbot, and Dr. Pruner, as nearly similar as possible, in order that I might classify their answers: and let us now analyse the information received from these gentlemen.

They all agree upon one point, that "Egypt is never free from plague."* This fact I was desirous to establish, because it will be seen afterwards that clean bills of health are sometimes given at Alexandria, and upon these clean bills the sanatory regulations are modified and partially relaxed at Malta. Egypt is never entirely free from plague, partly from atmospheric causes, and partly from local circumstances dependant upon the physical condition of the people, to which I have already alluded; but mainly to the small, close, confined and huddled huts which compose an Arab village, and which are always the hot-beds of the malady whether sporadic or epidemic.

Let us next see what Dr. Gregson says about the causes which produce the plague and favour its propagation. He "believes it to originate from miasmatic influence,"† and he considers infection to be "Exposure to miasma, and the being affected by its influence."‡ He instances many facts,§ where medical men, hospital servants, nurses, attendants

* Vide Quest. and Ans. 14, 45, and 71. † Ib. 15. ‡ Ib. 16. § Ib. 17.

&c. have been in constant communication and close contact with plague patients, and yet have escaped the disease. And then we come to the question of contagion; and here Dr. Gregson states, "I am not aware of having seen one case contagious, but on investigation have found many so reported, to be false."* He believes that "communication by actual contact will not produce the plague;" and he adds that, "during the plague those who had to do with it feared it (the contact) the least, and the quarantine more."† He mentions that "cases have occasionally occurred in the navy," and concludes by saying "had it been contagious it would have spread."‡

These views are confirmed by the experience of Mr. Abbot, who is of opinion that "the plague is propagated by infection," which he explains by "miasma in the air, or by miasma from a diseased person."§ He also states that he "never saw the disease propagated by contagion;"|| and he "believes that communication by actual contact will not produce the disease."¶ And, lastly, he mentions a remarkable circumstance of the appearance of the plague on board the *Aboukir*, after she had been in quarantine six weeks, during which period no plague had shewn itself in the ship.** In this instance it was impossible to trace the disease to contagion, for it appears that the individual first attacked was a prisoner of war from Nablous, and it would be absurd to assert that the disease had been latent in him during a period of six weeks.

Dr. Pruner differs slightly, though not materially, from Dr. Gregson and Mr. Abbot. His evidence is remarkable. He "believes that the plague is propagated by contagion and infection;†† and then immediately relates two instances of plague, in which the parties were visited, attended, and in contact with very many persons, and yet in spite of no precautions having been observed, not one was attacked with the disease.‡‡ As Dr. Pruner's answer was not so satisfactory as I could have wished, I put another question

* Vide Quest. and Ans. 18.

§ Ib. 46 & 47.

** Ib. 50.

† Ib. 19.

|| Ib. 48.

¶† Ib. 72.

‡ Ib. 21.

¶ Ib. 49.

‡‡ Ib. 73.

to him: "Have you ever seen the disease propagated by contagion?" His answer is, "No: I never saw it, but I believe it is capable of being propagated by contagion."* Now Dr. Pruner has stated that "he saw one hundred and forty cases of plague,"† and yet in this large number he was not (though impressed with the belief of contagion) able to detect a single case of a patient having received the disease in this manner. Dr. Laidlaw says, "that if the plague is propagable by contagion, (and this I by no means deny in toto,) yet, it has been greatly exaggerated, and that so far from its following as a general rule, that persons exposed to the contact of the infected are always or generally attacked, it ought rather to be considered as the exception."‡ In all this Dr. Pruner seems to agree with Dr. Laidlaw. Dr. Pruner believes that communication by actual contact "does not always" produce the disease: "very seldom," he says, "if the contact is slight and if there is no epidemical disposition for the plague."§ Finally, Dr. Pruner has "very frequently" seen cases of plague "which could not be traced to communication with infected persons."|| In addition to these facts I may mention that Clot Bey, who has seen more of the plague probably than any medical man living, is decidedly opposed to and ridicules the doctrine of contagion. The only physician of any reputation in the East who at present advocates this doctrine is Dr. Bulard, but as the opinions of this gentleman appear to have been formed in a very equivocal manner, I shall merely call your attention to what has been said of him by Dr. Bowring,¶ and to an article published on the 10th of November 1838, in the *Journal des Debats*,** leaving you to judge whether he be truly and conscientiously a supporter of the notion that plague is capable of being propagated by contagion.

The most important point, as I have already observed,

* Vide Quest. and Ans. 74.

† Ib. 69.

‡ Dr. Bowring on the Oriental Plague, p. 40.

§ Vide Quest. and Ans. 76.

|| Ib. 77.

¶ Dr. Bowring on the Oriental Plague, p. 25.

** From this number of that Journal I select the following extract: "En effet, depuis six ans, j'ai eu le bonheur de traverser les époques pestilentiellles les plus meurtrières, de soigner 25 à 30,000 pestiférés et d'explorer 400 cadavres,

connected with the quarantine laws is the acquisition of some positive knowledge respecting the period which elapses between the exposure to the miasma of plague and the development of the disease, technically termed the "latent stage;" and upon this knowledge all sanatory regulations ought to be founded. Dr. Gregson is of opinion that the period in question is included "between the fifth and seventh days."* Mr. Abbot tells us, "I cannot positively say; but I should think about fifteen days."† Dr. Pruner places "the extreme limit at five days."‡ And Dr. Iken, who saw a great deal of the plague at Alexandria, mentioned to me that he considered the latent stage to be three days. These opinions on the subject are a little at variance. Mr. Abbot, who makes the duration of the period longest, acknowledges that "he cannot speak positively on the subject." Of the rest, who all have more confidence in their opinions than Mr. Abbot, Drs. Gregson and Pruner agree almost entirely, and there is a difference of only two days between the period fixed by them and that fixed by Dr. Iken.

With regard to the inutility of quarantines, especially where the plague actually exists, Dr. Gregson, Mr. Abbot, and Dr. Pruner coincide in every respect. They all observe that, notwithstanding Europeans are accustomed to maintain what they consider to be the proper and only precautions for preventing the ingress of the plague, instances from time to time occur of their being attacked and falling victims to the malady.§

Dr. Gregson speaks very forcibly upon this subject. He says, "I consider them (quarantines) inefficient, and that from their oppressive and partial operation they have, instead of diminishing, propagated the disease; and hun-

" sans jamais avoir été atteint de la Maladie ; je suis resté à demeure, pendant
 " plusieurs mois, dans les hôpitaux des pestiférés, au Caire, à Constantinople
 " et à Smyrne, où l'hôpital et le cimetière sont dans le même enelos ; j'ai
 " revêtu pendant deux jours la chemise sanieuse et ensanglantée d'un pesti-
 " féré, et dans ce long temps d'épreuves si diverses, au milieu desquelles je n'ai
 " jamais pris aucune précaution, c'est à peine si j'ai ressenti quelques uns des
 " effets de l'influence pestilentielle." The article is signed "A. Bulard."

* Vide Quest. and Ans. 22.

† Ib. 51.

‡ Ib. 78.

§ Ib. 23, 24, 52, 53, 79, 80.

dreds have been sacrificed by being torn from their homes and thrust into crowded, overcharged, and tainted Lazza-rets."* Mr. Abbot is opposed to quarantines because he thinks the disease "is infectious and not contagious."† The opinion of Dr. Pruner is curious, as he first considers quarantine to be "no safeguard at all against the plague;" but immediately goes on to say "it can only be a safeguard in countries where the disease is not endemical."‡ Dr. Pruner has, however, given us an instance in his answer to the preceding question of "an Italian who kept strict quarantine, but who was nevertheless attacked with the disease and died." Clot Bey has expressed himself very strongly on the subject of quarantines, and entirely corroborates the views of these gentlemen. In speaking of Crete, he says "Can it be affirmed then, that, if for six years Crete has been exempt from the scourge, she owes her healthy condition to the establishment of quarantines? This cannot be reasonably pretended, but we shall see. My wishes are truly sincere that the measures adopted may for ever be the safeguard of illustrious Crete; but unfortunately I fear that their fulfilment is impossible, for my opinion is that the plague, being endemic throughout the Levant, spreads itself by the influence of atmospheric causes. I do not advocate the abolition of quarantines, they are to a certain extent useful; but I should like to see them freed from those thousand and one fiscal practices, which are antiquated and vexatious; I should like to see the interests most important to science, commerce, and humanity unshackled by self-interest." Clot Bey then remarks on the quarantine measures adopted in Crete, but deplores the folly of making vessels arriving from Greece (herself under sanitary regulations) undergo quarantine upon their arrival in that island, and vice versa.§

Cordons Sanitaires were placed between Alexandria, Damietta, Rosetta, and Cairo, and yet the disease extended from one place to another.|| And Dr. Bowring mentions

* Vide Quest. and Ans. 25.

† Ib. 54.

‡ Ib. 81.

§ Malta Gazette, Aug. 15, 1838.

|| Vide Quest. and Ans. 26, 27, 55, 56, 82, 83.

that "during the plague of 1835 the harem of the Pacha of Egypt consisted of about three hundred persons, notwithstanding the severest cordon the plague entered, and seven persons died within the cordon."*

Dr. Gregson, Mr. Abbot, and Dr. Pruner assert that they have all had many plague patients under their care and have handled them. Dr. Gregson made autopsies of many oxen, and Dr. Pruner of many persons who had died of plague, and yet *all* three escaped an attack.† The history of Lardoni, the contagionist, is curious, as he not only used every the most minute precautions against receiving the plague by contagion, but when attacked asserted at first most positively that it was impossible that he could be suffering from the disease; he eventually became convinced of the nature of his malady on the third day, and died.‡ Dr. Pruner mentions that two classes of medical men were principally attacked, the old exhausted men, and young men freshly arrived from Europe.§

If cohabitation take place between parties, either of whom is affected with plague, and the disease be really contagious, we can scarcely suppose but that it would be communicated from one to the other. But when I put the question to Dr. Gregson, "Have you known the plague to have been communicated by sexual intercourse?" His answer is, "No, I have known many cases to the contrary."|| Mr. Abbot remarks that he has never known the plague so communicated; "but," he says, "a case came to my knowledge of a man having connexion with a female ill with the plague, and he escaped the disease."¶ Signor Luigi Casolani, Captain of the Lazzaret of Malta, mentioned an instance of a gentleman he knew in Malta, whose wife died of the plague; and the husband, who had had connexion with her just previous to the appearance of the symptoms, was never attacked.

The cases of the attendants in the Marine Hospital of Alexandria, mentioned by Dr. Gregson and Mr. Abbot,

* Dr. Bowring on Oriental Plague, p. 17.

† Vide Quest. and Ans. 28, 29, 30, 31, 57, 58, 59, 60, 84, 85, 86, 87.

‡ Dr. Bowring on Oriental Plague, p. 27.

§ Vide Quest. and Ans. 88.

|| Ib. 33.

¶ Ib. 62.

are very interesting. These persons resided in an Arab village, where the plague was epidemic. They were subsequently in attendance at the hospital, communicated with the patients most freely and extensively, occupied beds in the same wards, and one (Dr. Gregson's dresser) is reported to have touched at least two hundred patients, and indirectly through the other Infirmarians, to have communicated with the whole hospital; and yet the disease did not spread, but was confined exclusively to the individuals who introduced it into the hospital.* Dr. Pruner mentions "that attendants and nurses were attacked during epidemical plague."† But he has given us two instances, "of a Greek lady and Jewess, who were attended by many persons, none of whom were attacked;"‡ and Dr. Gregson remarks upon and Mr. Abbot alludes to the case of Madame Portalis, who while observing quarantine in Alexandria was attacked with the plague and died, and who throughout all her illness was attended by her daughters, all of whom escaped the disease.§

The answers to Quest. 36, 37, 38, and 39 by Dr. Gregson merit attention. He approves of bettering the condition of the poor by the distribution of food, ventilation and cleanliness, and adopting means which have been found most efficacious in reducing the severity of typhus in this country. He considers the operations of the Board of Health to be far too limited; that the Board is inefficient, lavish of expense, and tyrannical. He particularly instances its partiality shewn towards Dr. Bowring and Clot Bey in not reporting a case of plague in Alexandria until after their departure, that these gentlemen might leave with a clean bill of health and avoid being subjected to detention by quarantine upon their arrival in Syria; whilst he (Dr. Gregson) sailed from the same port a few hours after, and was obliged to undergo a quarantine of eighteen days upon his arrival in Beyrout. The opinions of Mr. Abbot and Dr. Pruner coincide with that of Dr. Gregson in the necessity of improving the physical condition of the poor as a means of mitigating or eradicating plague.

* Vide Quest. and Ans. 35, 64.

† Ib. 73.

‡ Ib. 90

§ Ib. 17, 63.

The latter mentions that among other measures, "the Government removed the surface of the earth in the principal streets, and the coverings of the streets placed from house to house;"* an apparently useless expense, for it can hardly be supposed that earth and wood are ever in the number of infected, or in fact that they are susceptible articles.

I have briefly described the manner in which the quarantines are conducted in Alexandria, and the proceedings of the Board of Health there and at Beyrout, and shall now proceed to shew that the same absurdities and inconsistencies exist in Malta. But first let me observe that the sanitary regulations at Malta are said, and deservedly so, to be better managed, the feelings of all who have to undergo quarantine to be better consulted, and the annoyances less than in any other port in the Mediterranean. The authorities connected with the Lazzaret department are anxious in the extreme to meet the reasonable wishes of any who may come under their charge, and they are indefatigable in remedying abuses which are represented to have occurred within the walls. When I made application to Captain Bonavia and Signor Casolani, to obtain information on the subject of quarantine in Malta, they most kindly offered me every facility in prosecuting my inquiry. To these gentlemen, as well as to Captain Carlton, I feel deeply indebted for the information with which they furnished me.

Let me beg of you now to peruse the following evidence.

CAPT. BONAVIA, Superintendent of the Lazzaret at Malta.

QUESTION 97. How long have you been employed at the Lazzaret?

A. Since the year 1832.

98. When was the Board of Health of Malta first instituted?

A. In April, 1826.

99. Of whom is it composed?

A. Of the Governor, who is President, the Chief Secretary

* Vide Quest. and Ans. 93.

to Government, the Superintendent of Quarantine, one of the Maltese nobility, the principal Medical officer of the Civil hospitals, and another Maltese gentleman who is a merchant.

100. Are the members of it self-elected, or appointed by the Government ?

A. The Governor, the Chief Secretary to Government, and the Superintendent, are members *ex officio* ; the others are named by the local Government.

101. How often is it assembled ?

A. It meets once a week, every Monday regularly, and as often as occasion requires. When there are infected vessel in the Quarantine harbour, the Board assembles every day.

102. Has it ever collected evidence from Medical men respecting the Plague, or acted upon suggestions made by them ? (In this question I do not allude to evidence obtained from the Physician attached to the Lazzaret.)

A. It acts according to the general regulations established and observed here from old date, without reference to other Medical evidence, excepting that of the local Physicians when occasion requires it.

103. Has it made any inquiries of Medical men who have had practice in the treatment of Plague, to ascertain the time which elapses between the exposure to infection and the development of the disease, preparatory to establishing Quarantine ?

A. No opinion of practised Medical men is obtained for regulating such Quarantines ; the periods are fixed by the Board of Health, one of the members of which is always a Medical man, and conformably if possible to the periods given by other Lazzarets in the Mediterranean.

104. In establishing the period of quarantine from infected places upon what data has the Board of Health acted ?

A. The quarantine from infected places is established by the Board of Health immediately after the first arrival of a vessel bringing a foul bill of health.

105. What essential good has resulted from the establishment of the Board of Health at Malta ?

A. The principal good is the being received in free pratique in all the Continent; the sanitary regulations at Malta being assimilated as nearly as possible to those established in the principal Lazzarets in the Mediterranean.

106. Is it in communication with other Boards of Health in Europe or the Levant ?

A. The Board of Health is in correspondence with the principal Lazzarets on the Continent, but never as yet with those in the Levant.

107. What quarantine is imposed in ports in Greece upon vessels with clean bills of health from Alexandria or Constantinople ? How long with foul bills of health ? and, after performing quarantine at a port in Greece, what quarantine is it necessary to perform at Malta ?

A. We understand that a quarantine is performed in Greece by vessels from Alexandria and Constantinople, but we are not aware of the number of days ; arrivals in Malta from Greece with regular documents shewing that the quarantine operations have been duly attended to, and that they have departed from thence in pratique, are subject to the quarantine established in Malta for arrivals from the Greek dominions, which is at present for merchant vessels eighteen days.

108. Do vessels and the crews from Constantinople, Alexandria, and other infected places undergo quarantine at Corfu or the other Ionian islands ? Of how many days is the quarantine at Malta upon vessels and passengers from Corfu ? Why was this quarantine established ?

A. Vessels from infected places do perform quarantine in the Ionian Islands. Arrivals from those islands are subject here to quarantine, viz., vessels fourteen days, and passengers detached from the vessels ten days. This quarantine is established in consequence of the vicinity of those islands to the Ottoman dominions, and also in consequence of the difference in their sanitary regulations compared with those of Malta and other principal Lazzarets.

109. During the seven years that you have been employed at the Lazzaret, have you ever known any of the persons employed in fumigating the letters from infected places to have been attacked with the Plague?

A. Never. But when the Plague is raging at any place, the persons employed in the smoking office, as a precaution, give a general fumigation to the letters received before putting themselves in contact with them.

110. Have you ever known the guardians employed in handling the baggage of passengers or merchandise in the Lazzaret, to have been attacked with Plague?

A. Never.

111. Can you give me the number annually, of persons who have performed quarantine at the Lazzaret for the last seven years?

A. The number of persons who have performed quarantine in the Lazzaret is as follows :—

	Passengers.	Troops.	Pilgrims.
In 1832	1123	1542	—
1833	946	299	—
1834	1160	933	599
1835	1267	—	362
1836	1813	—	906
1837	2494	—	93
1838 to 12th Sept. 1739	—	—	—

112. Of these numbers, have you ever known a case of plague occur where persons have been placed in the Lazzaret—of course excepting those removed from vessels where the plague was raging at the time of their removal?

A. Never.

113. How long has a register been kept in the Lazzaret of persons performing quarantine?

Regular registers of persons performing quarantine have been kept since the year 1829; before that period, memoranda only were kept.

114. Is cotton ever purified at Malta?

A. Several times.

115. Have the persons handling cotton ever been infected with plague?

A. Never; but cotton or other susceptible articles landed from ships with the infection on board are always exposed to the air and ventilation before they are handled.

116. When epidemic plague is raging at Alexandria, what quarantine for passengers is required to be performed at Malta? When sporadic plague is existing, what quarantine is imposed upon passengers?

A. Passengers with foul bills of health from Alexandria or elsewhere perform twenty-one days in the Lazzaret detached from the vessels from which they have landed.

La Valetta, Malta, September 1838.

GIOVANNI GARCIN.

QUESTION 117. How long have you been employed in the Lazzaret at Malta?

A. Twenty-nine years.

118. In what capacity are you now employed?

A. First clerk to the Lazzaret.

119. Is it customary for the guardians to ask persons coming from infected places, if they have any sealed letters; and if they have, to take them and carry them to be fumigated?

A. It is the custom.

120. During the twenty-nine years that you have been attached to the Lazzaret, have you ever known an instance of any person employed in fumigating the letters from infected places to have been attacked with plague?

A. Never; but the letters from infected places are always fumigated first, then opened with scissors and fumigated a second time previous to being handled. This is done only with letters which arrive from places where plague actually exists.

121. Have you ever known an instance of a guardian employed in handling the baggage or wearing apparel of passengers, or of the crew of a vessel, to have been attacked with the plague?

A. Never.

122. Have you ever known an instance of the persons employed at the Lazzaret in exposing cotton, wool, feathers, flax, rags, sails, or other susceptible articles from infected places to have been attacked with the plague whilst so employed—excepting vessels having the plague on board?

A. Never.

123. Have you ever known an instance of a laundress employed to wash the linen of persons in quarantine, to have been attacked with the plague?

A. Never.

124. And they handle the dirty linen without any precaution previous to immersing it in water?

A. Without any precaution.

125. Since the period of your first engagement at the Lazzaret to the year 1832, what do you suppose was the average number of persons performing quarantine annually?

A. From eight hundred to one thousand persons.

126. Have you ever known an instance of plague occurring amongst persons placed in quarantine in the Lazzaret—of course excepting those removed from vessels where the plague was raging at the time?

A. Never.

La Valetta, Malta, September 1838.

CAPTAIN CARLTON, Captain of the Port, Malta.

QUESTION 127. Do vessels ever come to Malta from Alexandria, Smyrna, or Constantinople, with clean bills of health?

A. Occasionally; but rarely from Alexandria and Smyrna, and never from Constantinople.

128. When vessels arrive at Malta from Smyrna or Alexandria with clean bills of health do the guardians handle the letters brought by these ships previous to fumigating them?

A. They do.

129. Are you aware of the fact, that Egypt is never entirely free from plague?

A. No, I am not aware of it.

La Valetta, Malta, September 1838.

LETTER No. III.

[COPY.]

Syra, 10th October, 1838.

SIR,

I have had the honour to receive your letter from Malta, dated 18th September, requesting information on the sanatory regulations at this island, and which I hasten to communicate to you.

Vessels from all parts of Turkey and Egypt are received at Syra, and perform a quarantine of seventeen days with foul bills of health, and eleven days with clean bills of health, dating from the day of their arrival at Syra for trading vessels, and from the day of the departure of the vessel from the last Turkish or Egyptian port for men-of-war and steamers; thus for these last the days of the passage are reckoned.

Should any case of plague or cholera break out during the vessel's passage to Syra or after its arrival here, both vessel and passengers are sent to the quarantine station at the Island

of Delos, where the quarantine is fixed at forty days from the date of the last attack.

These quarantine regulations are the same all over Greece.

The Lazzaretto of Syra is in a very wretched condition ; some repairs have lately been made ; and it is the intention of the Government to build a new one on the other side of the harbour opposite the town. The plan has been made and approved ; but the financial situation of the Greek Treasury is such, that it may be some time before this very necessary building is erected.

The Lazzaretto dues are as follow ;—

For a room, 3 drachms a day.

To the guardian, $1\frac{1}{2}$ drachms a day.

Fumigating, Doctor, &c., 3 drachms each person.

The drachm is equal to about $8\frac{1}{2}$ d. English.

A Restaurateur is attached to the Lazzaretto, who furnishes everything required by travellers, such as bedding, beds, dinner &c. &c. The charge varies according to previous agreement.

I shall be most happy to give you any further information which you may require, and beg you will freely command my services.

I have the honour to be,

Sir,

Your most obedient humble Servant,

RICHARD WILKINSON.

To Arthur T. Holroyd, Esq.

LETTER No. IV.

[COPY.]

Corfu, September 30th, 1838.

My dear Holroyd,

I received your letter of the 18th, and have made the necessary inquiries concerning the sanatory regulations. The answers to your questions I send.

1st. Do vessels from Constantinople, Smyrna, Alexandria, or other infected ports, perform quarantine at Corfu ?

A. They do.

2d. How many days with clean bills of health ?

A. Twenty-five days.

3d. How many days with foul bills of health ?

A. The same, twenty-five.

4th. Is the period of quarantine the same from all the above places ?

A. It is.

5th. Does the voyage of vessels of war count as part of the quarantine ?

A. It does.

If I can get you any more information on this or any other subject, I shall be most happy to do so.

Ever very truly yours,

B. W. SHAW.

To Arthur T. Holroyd, Esq.

Here, you must allow, is a most extraordinary collection of facts. Let us proceed to analyse them. The first questions of any importance are Nos. 102, 103, 104, 105, and from these we learn that the Board of Health of Malta are satisfied with going on in the old way, merely consulting local physicians as occasion may require, and not collecting medical evidence from professional persons best acquainted with the plague; that they have the greatest reliance upon their own judgment, and especially on that of one of their colleagues, who is a medical man; that they conform their periods of quarantines, as much as possible, to the periods given by other Lazzarets in the Mediterranean; and that the quarantine from infected places is established immediately after the arrival of a vessel bringing a foul bill of health. We learn also that the Board of Health is in correspondence with the principal Lazzarets on the Continent, but that it has never corresponded with those in the Levant. Now the only object of their corresponding with the Boards on the Continent appears to be this, that the Board of Health is desirous of having that island always in pratique; and to ensure this it is essentially necessary to establish such a quarantine as will satisfy the Continental Governments. That the Board does not correspond, as Captain Bonavia tells us it does not, with any other Boards

in the Levant, is very extraordinary; because it would be imagined that, being composed of enlightened men, the Board of Malta would be anxious to collect all information possible from places where the plague exists, with a view to improve the present system, diminish the period of quarantine, and endeavour to convince the European Powers that they might impose less restrictions without increasing the risk of introducing or importing the plague.

Mr. Wilkinson informs us that "vessels from all parts of Turkey and Egypt are received at Syra, and perform a quarantine of seventeen days with foul bills of health, and eleven days with clean bills of health, dating from the day of their arrival at Syra for trading vessels, and from the day of the departure of the vessel from the last Turkish or Egyptian port for men of war and steamers. Thus, for these last the days of the passage are reckoned.* Then we are informed that forty days of quarantine are fixed from the date of the last attack upon vessels where the plague has appeared. And now what happens at Malta? After the vessel crew and merchandise have undergone the requisite purification, and bring with them documents from Syra or other ports of Greece, "shewing that the quarantine operations have been duly attended to, and that they depart from thence in pratique," after these detentions, I ask, is it not natural to suppose they would be in pratique upon their arrival at Malta? and more especially when I tell you that the voyage from Syra to Malta is rarely of less duration than from seven to ten days, and generally much longer. But Captain Bonavia tells us, that let them come under the most advantageous circumstances, and with the best possible documents, yet we are not satisfied, but "subject them to the quarantine established in Malta for arrivals from the Greek dominions, which is at present for merchant vessels eighteen days."† So that a merchant vessel with clean bills of health from Turkey or Egypt, touching at Greece and proceeding to Malta, has to perform eleven days at Greece and eighteen

* See Mr. Wilkinson's Letter, No. III.

† Vide Quest. and Ans. 107.

at Malta, without estimating the length of time occupied in the voyage between the latter places.

Great anomalies exist in the quarantines at Corfu. Mr. Shaw, of H. Majesty's 5th Fusileers, very kindly procured for me the information "that vessels from Constantinople, Smyrna, Alexandria, or other infected ports, whether they bring clean bills of health or foul, are obliged to undergo twenty-five days quarantine at Corfu: and an exception is only made in favour of vessels of war, which are permitted by the authorities to count their voyage as a part of their quarantine.* How then do these vessels fare at Malta, after having undergone the necessary quarantine at Corfu? Captain Bonavia says that "arrivals from those islands (the Ionian) are subject here (at Malta) to quarantine, viz.—vessels fourteen days, and passengers detached from the vessels, ten days." He then gives the reasons of this, which are "the vicinity to the Ottoman dominions and the difference betwixt the sanatory regulations of those dominions and the regulations of Malta and other principal Lazzarets."† But in what does this difference consist? I observe afterwards, that at Corfu the regulations are more strict and severe than at Malta. In Captain Bonavia's evidence we find that "Passengers with foul bills of health from Alexandria or elsewhere perform twenty-one days quarantine in the Lazzaret, detached from the vessels from which they have landed."‡ Now, at Corfu, the quarantine from the same ports is twenty-five days, four days longer than that of Malta. We should have supposed then that the passengers in vessels from Corfu would be in pratique upon their arrival in Malta; yet this is not the case, for a quarantine of not less than ten days is exacted. Captain Bonavia says, the authorities of Malta have their apprehensions from the contiguity of Corfu to the Ottoman dominions. If this be really the reason, why do they not impose upon Corfu the same quarantine which is placed upon vessels from Syra or other ports of Greece?

In the article already quoted from the *Journal des Debats* Dr. Bulard gives the periods of quarantine required at

* See Mr. Shaw's Letter, No. IV.

† Vide Quest. and Ans. 108.

‡ Ib. 116.

different ports in the Levant. He says, "A Odessa, qui
 "n'est qu'à trois jours de Constantinople, on fait quatorze
 "jours de quarantaine, fumigations de Chlore et *Spoglio*; à
 "Orsova, limitrophe de la Turquie, point de jonction des
 "frontières d'Autriche, de Valachie et de Servie, dix jours
 "seulement de quarantaine sans aucun désinfectant; en Va-
 "lachie, quatorze jours, avec fumigations de soufre; en
 "Egypte, sept jours;* d'Alger en France, sept jours; en
 "Grèce, quinze jours;† à Malte et dans les autres ports de
 "la Méditerranée et de l'Océan, distans de Constantinople de
 "cinq jours à deux mois, on exige vingt-un jours de quaran-
 "taine avec des pratiques accessoires variées, plus ou moins
 "empiriques, plus ou moins ridicules, qui ne blessent pas
 "moins le bon sens et la science, que les intérêts matériels
 "de tous les peuples."

Captain Bonavia states that "persons employed in fumigat-
 ing the letters from infected places have never been attacked
 with the plague;" but he also mentions that "when the
 plague is raging at any place, the persons employed in
 the smoking office, as a precaution, give a general fumi-
 gation to the letters received before putting themselves
 in contact with them."‡ And this is corroborated by Signor
 Garcin, who says "this is done only with letters which
 arrive from places where plague actually exists."§ But
 passengers who enter the Lazzaret at Malta are always
 asked if they have any letters about them, and if they
 have, are obliged to give them to their guardian, who re-
 ceives and handles them and subsequently deposits them in a
 box in which they are carried to be fumigated. Precautions
 are only taken with letters brought from places where the
 plague is actually raging. Captain Carlton tells us that
 vessels occasionally arrive at Malta from Alexandria and
 Smyrna with **clean bills of health**, and that letters brought
 by such vessels are handled by the guardians previous
 to undergoing the process of fumigation. But Captain

* Now twenty-one days. A. T. H.

† Seventeen days with foul bills of health, and eleven days with clean bills of health. See Mr. Wilkinson's Letter, No. III.

‡ Vide Quest. and Ans. 109.

§ Ib. 120.

Carlton did not appear to have been aware of the fact "that Egypt is never entirely free from plague;" an opinion confirmed by the experience of Dr. Gregson, Mr. Abbot, and Dr. Pruner. And if it be true that plague always exists in Egypt, clean bills ought not to be received as such at Malta, and the same precautions ought to be adopted in the fumigating department as are enforced when vessels arrive with foul bills of health.

Supposing that we waive the question of the fumigation of letters; what do we observe afterwards? Captain Bonavia who has been seven years attached to the Lazzaret, and Signor Garcin who has been nine and twenty, both of them tell us that "they have never known a guardian employed in handling the baggage of passengers or merchandise in the Lazzaret to be attacked by plague."* It is the duty of a guardian to pass his hands daily over all the wearing apparel of persons performing quarantine; and by referring to the "Regulations for the performance of Quarantine at Malta," I find that "apparel of all kinds, books, brushes of all sorts, cordage (not tarred), all articles wholly made of or mixed with cotton, silk, wool, thread, or yarn, paper, maps, quills, sponges, &c., are placed in class the first, articles which are considered as most liable to infection." It not unfrequently happens that passengers arrive at Malta with a great deal of soiled linen, and permission is given to such to have a laundress from La Valetta, who remains in quarantine until her employers obtain pratique. Now if one thing ought to be considered more susceptible than another, dirty linen brought from an infected port is peculiarly in that condition. And yet we find that for twenty-nine years "laundresses have been engaged in washing the linen of persons in quarantine, without a single case of plague occurring amongst them, although they handle the dirty linen without any precaution previously to its immersion in water."†

Lastly we collect from Signor Garcin that from the commencement of his engagement at the Lazzaret in 1810, to the year 1832, "the average number of persons performing

* Vide Quest. and Ans. 110, 121.

† Ib. 123, 124.

quarantine annually at Malta was from eight hundred to one thousand ;”* and Captain Bonavia shews, by his returns, that since 1832 there has been a very considerable increase. Let us take therefore the mean of Signor Garcin’s estimate at nine hundred, and this multiplied by twenty-three (the number of years from 1810 to 1832), and we have 20,700 persons ; whilst Captain Bonavia’s returns for six years, from 1832 to 1837 inclusive, give an amount of 13,537, which, added to 20,700, makes in all 34,237 persons who have performed quarantine during a period of twenty-nine years. It would surely be reasonable to suppose that out of so great a number some one at least had been attacked with plague whilst performing quarantine ; yet we learn from both Captain Bonavia and Signor Garcin that not one single instance of plague has occurred in the Lazzaret, if we except the cases of individuals who were removed from vessels where the plague was actually raging at the time. Is not this sufficient to arouse the indignation of any who may be compelled to undergo an incarceration for the alleged purposes of purification ? The documents of the Lazzaret shew that it would be an exception to the universal rule if any one were attacked with plague during quarantine ; and that this exception has actually, during twenty-nine years, never occurred. Surely something should be done to remedy so flagrant an evil as the quarantine laws ; and if it be at present too premature to ask for their total abolition, let me at least entreat you to think seriously of attempting a modification of them.

The following particulars, obtained through the kindness of Captain Bonavia, shew the nature of plague to be at least very sparingly if at all contagious, as well as the effect of miasmatic influence in small crowded vessels.

The brig “ Moslem,” of 171 tons, laden with linseed, with a crew of 8 persons, arrived in Malta from Constantinople on the 1st of January 1837. Three persons had died on the voyage, and their death was supposed to have been occasioned by Plague ; the Captain and his wife were two of those who

* Vide Quest. and Ans. 125.

had died. Upon the arrival of the vessel at Malta she was put into quarantine, well washed and fumigated; the cargo was discharged, exposed, and replaced in the hold. On the 24th of February, fifty-five days after her arrival, no additional cases of Plague having appeared amongst the crew, she was admitted to pratique.

The barque "Paranza Ottoman Mishoud," of 50 tons, arrived at Malta from Tripoli on the 22d of February, 1837. The crew consisted of six persons and 52 passengers, of whom one, Emerico Borg, was ill of Plague. The passengers and Borg among them were all taken to the Lazzaret, the latter the day of the arrival of the vessel, the former on the 24th. And all the passengers and crew must have been directly or indirectly in contact with Borg; yet not one of the crew or passengers was attacked up to the 13th of March, on which day the barque left under orders to return to Tripoli, and was accompanied on the voyage by H. M. Ship Rapid.

On the 4th of April, no plague having shown itself, and forty-one days having elapsed from making the "spoglio,"* the fifty-one passengers were admitted to pratique. Borg did not get pratique until the 17th of July, having spent one hundred and forty-six days in quarantine; that is, he disembarked from the vessel February 22d, he performed spoglio on the 19th of May, and he had pratique 60 days from making the spoglio, viz., on the 17th of July.

The Ottoman Bombard (or Saccoleva) "Sada," of 50 tons, arrived in Malta from Tripoli in the night of the 23d of February, 1837. The crew consisted of 11 men and 21 pilgrims who were passengers. She was laden with susceptible articles and some beans. She left Tripoli with 22 pilgrims, but one fell overboard on the passage. As the plague was at Tripoli, guard boats were placed near the Sada upon her arrival at Malta to prevent communication.

On the 25th one of the Pilgrims was reported sick, and Dr. Gravagna decided that the man was ill with plague.

* The "spoglio" consists in each passenger placing his wearing apparel in a tub of water, well washing himself afterwards, and then dressing in new clothing which is in pratique. The bedding is, in all cases, destroyed.

Early on the 27th it was reported that another pilgrim had been taken suddenly ill, and had died after a few hours.

Dr. Gravagna decided that this man had also fallen a victim to the Plague. The first pilgrim which was attacked was landed on the 27th at the Lazzaret, with two more pilgrims who were in health, to attend upon him, and at 2 P. M. the same day the sick man died.

On the 2d of March all the remaining pilgrims were landed in the rooms of the plague hospital, to prepare themselves for the spoglio; and on this day they were separated from the crew, and were prohibited from holding any further communication with them. The crew and pilgrims continued well until the 8th, the former were still on board, when on that day one of them, a Greek, was taken ill with Plague and died on the 10th. Dr. Xerri was put into quarantine on the 9th to attend to these cases of plague.

On the 10th, the vessel having been cleared out, and the remaining ten persons composing the crew landed, the vessel was bored and sunk to purify her.

On the 21st the crew commenced raising the vessel, and it was ready to receive them on the 23d, on which day they went on board again.

On the 14th of April the 19 pilgrims, after a lapse of forty-one days from making the spoglio, and always enjoying good health, having had all their clothes exposed to the air day and night, and after the regular visit from Dr. Gravagna, were admitted to pratique along with their guardian.

On the 25th of April the crew were admitted to pratique, no fresh case of Plague or other illness having occurred after that of the Greek.

The quarantine performed by the above crew was as follows:—

From the day of arrival to the day in which they made the spoglio	15 days.
From the spoglio to pratique	43

Total 58 days.

It cannot be supposed that the Pilgrims in health did not communicate with the two who were attacked with and died of plague. In short any one who has seen these small vessels must be convinced that contact could not but have

taken place either directly or indirectly. One of the sick pilgrims was removed to the Lazzaret with two others as his attendants. These must have handled him, they being his nurses; and they were not attacked with the disease. When the pilgrims were removed from the ship, the focus of plague, no fresh case occurred amongst them; the crew remained on board, and one of them, a Greek, was attacked on the 8th of March, the last sick pilgrim having been sent to the Lazzaret on the 27th of February, a period of ten days before. Are we to suppose that the plague was in its latent stage in this man during these ten days? is it not more reasonable to suppose that the vessel had not been properly ventilated, and that an impure atmosphere still existed? The crew were afterwards brought on shore, the vessel was then purified by sinking her; they returned on board, and they remained free from the disease. Surely it was the removal from the contaminated air, and the purification of the vessel which prevented the extension of the pestilence.

The Tunisian *Sciabecco* "Mishud," 50 tons burden, arrived at Malta on the 2d of March 1837 from Tripoli, with a crew of 10 men and 30 passengers; one of the passengers and one of the crew were sick. She was laden partly with susceptible and partly with non-susceptible articles: she was placed under the surveillance of guard boats. At 7 P. M. the passenger, Antonio Buccagnano, a Corsican, expired. The sick man belonging to the crew was landed on the 3d, at 9 A. M. In the afternoon of the same day the 29 passengers were landed in the plague hospital, and the sick person, who was pronounced by Dr. Gravagna to be affected with plague, was placed in a separate room with two of the crew to nurse him. On the 5th the passengers commenced the spoglio. On the 9th the vessel was bored and sunk—the sick man improving slowly—the crew were landed—the attendants on the plague patient were quite well—no plague appeared amongst the other passengers or the crew.

On the 20th the vessel was raised, and on the 23d the crew went on board again. On the 24th the sick Tunisian was better, and the crew and passengers in good health. The two

who were in attendance upon him had ceased to nurse him, and after performing the spoglio had been placed in a separate room in the hospital.

On the 14th of April, the 29 passengers having been visited by Dr. Gravagna and found to be in good health, and having performed forty-one days since the spoglio, &c., were admitted to pratique.

On the 15th the Tunisian made the spoglio.

On the 25th the seven persons forming the crew of the Scia-becco and the vessel itself were admitted to pratique.

On the 8th of May the two attendants received pratique, and the Tunisian on the 17th of June. The latter performed one hundred and seven days quarantine in the Lazzaret, viz. :—

From his landing to the day on which he was permitted to make the spoglio	43 days.
---	----------

From the spoglio to pratique	60
------------------------------------	----

And in consequence of an accidental communication with a sailor who was in quarantine from Tunis, and whose pratique was to fall June 17th ..	4
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Total.....	107 days.
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Here we have the plague on board a small vessel crowded with passengers, and the disease ceasing as soon as the passengers and crew are removed from the contaminated atmosphere to the Lazzaret. Even the attendants on the Tunisian escape any attack of the disease.

Up to a recent period permission was granted to persons in quarantine to have the enjoyment of a boat for rowing in the quarantine harbour. An Englishman abused this privilege by communicating with some vessels not in pratique, and it was in consequence withdrawn. A German nobleman, who lately took his quarantine at Malta, made an application for a boat but was refused; and my friends and myself applied to the Captain of the Lazzaret with no better success. After having passed ten days of our quarantine, Reshid Pacha and suite entered the Lazzaret, and as I perceived that a boat was placed at the disposition of his children, I thought my application to Signor Caso-

lani had not been properly understood; I therefore addressed the Governor of Malta Sir Henry Bouverie on the subject, when the following correspondence took place between us:

LETTER No. V.

[COPY.]

Fort Manuel, August 29th, 1838.

SIR,

An application having been made by our party for the privilege of hiring and keeping a boat during the period of performing quarantine, and such request having been refused, I shall feel particularly obliged if your Excellency will permit us to have a boat during the remainder of the time which we are compelled to pass in the Lazzaret.

I have the honour to remain,

Sir,

Your obedient and humble Servant,

ARTHUR T. HOLROYD.

To his Excellency Sir Henry Bouverie, K.G.C.,
Governor of the Island of Malta.

LETTER No. VI.

[COPY.]

Gozo, September 1st, 1838.

SIR,

Being at Gozo, I only received your letter last night. I regret to be obliged to refuse your application to be allowed to keep a boat during the period of your quarantine, the rules of the Lazzaretto not permitting it for reasons too obvious to require explanation.

This rule has in one instance been departed from; and a boat belonging to the office of quarantine has been lent to the children of Reshid Pacha, but upon the express understanding that should any question arise, or the indulgence granted to these children be made the foundation of any claim on the part of other gentlemen performing quarantine

for the same permission, the indulgence must be immediately withdrawn; the continuance of the indulgence rests therefore with the gentlemen in the Lazzaretto.

I have the honour to be,

Sir,

Your most obedient humble Servant,

H. F. BOUVERIE.

To Arthur T. Holroyd, Esq.

LETTER No. VII.

[COPY.]

Fort Manuel, September 2d, 1838.

SIR,

I have the honour to acknowledge the receipt of your letter of the 1st of September; and in reply I beg to assure your Excellency that it is far from the wish of any of our party to withdraw the indulgence granted to the children of Reshid Pacha; and we therefore waive all claim for permission to enjoy a similar privilege.

At the same time I cannot but express my opinion, that if the established regulations of the Lazzaret can be departed from with safety in the instance of the children of Reshid Pacha, the same indulgence might with equal justice be extended to all.

I have the honour to be,

Sir,

Your obedient and humble Servant,

ARTHUR T. HOLROYD.

To his Excellency Sir Henry Bouverie, K.G.C.,
Governor of the Island of Malta.

On the 8th of November last a letter on the laws of quarantine appeared in the Times newspaper, addressed to Sir Henry Bouverie, and signed by two officers and three merchants from India. As it demonstrates most clearly the harshness of the present sanatory regulations and the unwarrantable delay occasioned by a protracted imprisonment, I wish particularly to call your attention to the inconveniences which these gentlemen were obliged to undergo. I therefore insert the letter at length.

LETTER VIII.

LAWS OF QUARANTINE.

To His Excellency Lieut.-General SIR HENRY FREDERICK BOUVERIE, K.G.C. &c., Governor of the Island of Malta and its Dependencies, and a Member of the Board of Health.

SIR,

Ten days have now elapsed since our disembarkation in Fort Manuel, and we are informed that we shall be detained here ten days more to complete, what is termed, a "quarantine." This delay in our journey will be increased still further to the extent of six days, because we shall not have an opportunity for leaving the Island of Malta by a steam-boat for France till five days after our liberation; and this is neither more nor less than a loss to us, by quarantine detention, of twenty-five days, occasioned by our having passed over a portion of the country of Egypt where the plague often prevails. Though well entitled to indulge in dissatisfaction at this stoppage of our journey from India to Europe, yet it is less on our own account than on that of future travellers that we beg permission to submit to your Excellency's examination, whether the rules under which we now suffer an imprisonment of twenty days are called for by necessity; and whether the means employed can possibly secure the end proposed to be attained of purifying travellers, so as to be certain that they have about them no infection of the plague, and shall be rendered incapable of spreading that disease in Malta, or in those countries of Europe they go to visit or inhabit.

To enable us to arrive at a just conclusion respecting the facts which bear on the question of quarantine, let us accompany a traveller, ourselves for instance, from India to Malta, and if it should be objected that such a case is one not generally applicable, we should reply that the system is only the more intolerable and absurd, that it admits of no reasonable exception. But our case is that of many others, and will in the future become that of very many more. We therefore solicit your Excellency to apply to our case the remarks we have to make on

the present system of quarantine, and then to reflect whether so long a quarantine ought to have been awarded to us, or whether in having been so, it is not striking us with a hardship indefensible on grounds of reason and experience.

We left Bombay on the 12th of September last, and on the 10th of October embarked at Alexandria for Malta in Her Majesty's Steam-vessel *Blazer*. Our journey from Bombay till the time of our embarkation at Alexandria, occupied twenty-eight days, and we were of that time ten days in Egypt, six or seven of which we were travelling in a desert or on a river, where it was impossible to hold a promiscuous intercourse with the people of the country, and we were for three days in a city, and then inhabiting clean and airy houses either in Alexandria or Cairo. The plague, we were informed, had not been in Suez or Cairo for months before our arrival at those places; and the last case at Alexandria occurred thirty-seven days before the day of our embarkation. How then we would respectfully ask your Excellency, is it possible that we should have acquired the infection of a disease which did not exist, and which had totally disappeared from the country for so long a period before we entered or left it? Yet here we are doomed to suffer restrictions which, it appears to us, can only be called for, and that to a less extent even then, when the plague is actually raging at the time the traveller quits Egypt. We would ask your Excellency if it is not quite absurd that we should undergo imprisonment for the very same period as if thousands were dying daily when we left Alexandria. Might we be permitted to offer an opinion, we should say that there ought to be three scales of quarantine; one of the longest period for persons leaving Egypt when the plague is epidemic, and which should not exceed twenty days from the day of departure; one-half that term when there are sporadic cases only at or within fifty miles of the port of embarkation; and the third, amounting to six days, also to be reckoned from the date of departure from Egypt, when the plague has not prevailed, either as an epidemic or in particular spots or single instances, for twenty days previous to departure. This scale we firmly believe to be more than ample to satisfy the most scrupulous, who shall open their eyes and attend to the dictates of reason. It has been suggested to us by the known fact that Europeans residing in Egypt (that cradle where the plague is nurtured by filth

and malaria) when they wish to hire a domestic, while barricaded within their houses, and the plague raging at its highest pitch, never require from him more than ten days' seclusion before admitting him to their house. Are Europeans residing in Egypt less scrupulous about their lives, and less vigilant in averting dangers which might threaten their existence, than their countrymen in Europe? and have they ever suffered from such a custom? In so far as we can discover they have never suffered. Their conduct must therefore be deemed to be shaped by experience, and fitly adapted to facts and circumstances. It meets the fact that the plague is contagious; but it meets it reasonably and without ridiculous fears. It looks the evil in the face, and provides with wise precision that which is certain to be suitable in warding it off. Through moral courage these men have ascertained what is physically necessary for their safety; and have for ever laid that terrific ghost, which still haunts the imaginations of their countrymen in Europe. They fearlessly risk the lives of all whom they hold most dear on the custom they have established. Then, when the disease is only heard of in sporadic cases, or when entirely abated, Europeans throw open their doors, and carry on the ordinary business of life and of intercourse with the natives of the country. How many of them have died of the plague from pursuing this course? We are given to understand that none, who inhabit airy houses and who do not mix with the dregs of society, have suffered. But, if none have suffered, why should ships, and their inmates, leaving the country where there is little or no disease, and that, moreover, to reach any port in Europe, having a period of some days or weeks to spend in the pure air from the open sea, be subjected to any quarantine at all? They leave the birth-place of the plague when no one in the country itself fears infection from his neighbour; and none acquire it but individuals exposed to some local malaria arising from the soil, or imbedded in personal filth, and who might rather be said to fasten upon the disease than it upon them.

The scale we have suggested has also strong ground of support, so far as regards clothes or articles exported from Egypt; in the experience of European ports, which receive the cotton wool of Mehemet Ali Pacha, commerce and self-interest have here set at rest a great deal of argument respecting

the plague being communicated by things, we allude to the large bales of cotton, gathered and packed by those individuals most subject to plague, and among whom, and in whose clothes it must lurk, if it is to be found so lurking and so communicable at all in Egypt. Every atom of cotton in those bales is touched by such individuals. Nothing is said to be more liable to imbibe and retain the fatal virus, than the fibres of cotton. Yet, compressed bales of this article are received into European ports, after being pierced, and for forty days exposed, with two or three holes only, by way of allowing the air to circulate and disinfect the whole compact mass. When we reflect on this fact, and on its harmless consequences, and look round our chambers here, where every pocket handkerchief, every sealed paper, book, or parcel of papers, which had lain at the bottom of our wooden boxes, the outsides only of which were touched by Egyptians (and wood is said not to be liable to infection), are scattered to procure air for purifying them, we cannot but think there is a great degree of unnecessary mummery, annoyance, and evil-intentioned carefulness, at once discreditable to the science and intelligence of our country, and contemptibly mean and tyrannical as exercised towards persons, and not to commercial bales of cotton.

We mean no disrespect to your Excellency, or the Board of Health here, in making these observations. Your Excellency, we are fully aware, is only fulfilling those duties imposed upon you by Government; and perhaps Government finds them, to a certain extent, imposed upon itself by the inveterate prejudices of other potentates, who either cannot, from defect of intelligence, or wickedly will not examine the quarantine system. But the question is a great one; and that ignorance of others, which obstructs the well-being of mankind generally, ought to be dispelled by the more intelligent powers of Europe. Would that it were a law, as it is the interest of nations, to settle such questions by general rules, that should be binding upon those who are unreasonable terrorists and obstinately prejudiced.

We must afford our testimony to the kindness of disposition of Signor Casolani, the superintendent of the quarantine establishment,* and to the excellence of the arrangements generally for the accommodation of the prisoners here. Every-

* Signor Casolani is the Captain, not Superintendent of Quarantine.

thing seems to be done to alleviate the hardship of what appears to us a tyrannical imprisonment ; because it is of benefit to nobody but *traiteurs*, guardians, and government individuals appointed to superintend it. By frequently agitating the reasons for and against quarantine, as it now exists, something it is to be hoped may be done to men's understandings ; and that this farce, in which we are at present playing so tragical a part, will before long be abandoned : and we pray your Excellency will make such a use of this representation as you may deem best suited for aiding in what ought to be the object of all sensible men, the reduction of quarantine to the term suggested by known facts and sound reason, divested of prejudice and ridiculous fears. In concluding, we have to offer apologies to your Excellency, for occupying your attention with a subject which at Malta, and to your Excellency, must be a trite one.

We have the honour to be, with sentiments of great respect,
your Excellency's very obedient Servants,

H. D. ROBERTSON, Major of the Bombay Army.

W. PURVES, Lieutenant of the Bombay Army.

JAMES SINDRY, {
G. ADAM, } Merchants from Bombay.

C. POULAIN, Merchant from Pondicherry.

Fort Manuel, Malta, October 24th.

The Times, November 8th, 1838.

In concluding my observations upon Malta, I may mention the following anecdote. Signor Luigi Casolani, was recently put into quarantine in a most amusing but yet ridiculous manner. His boat was at the landing place of the Lazzaret, and a coat was in it which was in quarantine, and which had not been exposed sufficiently long to be purified. Signor Casolani assisted a lady into the boat, and she unconsciously sat down upon the contaminated coat, and was therefore supposed to be infected, or *contumacious* according to Lazzaret phraseology. He then accompanied Sir Wilmot Horton to the same boat, who, while stepping into it, shook hands with the lady with one hand and with the other shook hands with Signor Casolani, at the same time taking leave of him. But it so happened that, as the lady

was already infected, Signor Casolani also became infected, the supposed or pretended infection having passed from the lady through Sir Wilmot Horton to Casolani with the rapidity of electricity.

Sanatory regulations have recently been issued at Constantinople, which were published in the Malta Gazette of the 25th of July, 1838, and are to this effect :—

TURKEY.—The following are the sanatory regulations which have been recently adopted by the Ottoman Porte :

1. All ships, on arriving at the Dardanelles, shall be obliged to produce their certificate of health.

2. Every ship coming from Egypt, Syria and other parts of the Mediterranean where the plague exists, shall be subjected to a quarantine of observation.

3. Every ship arriving from these places with sick persons on board, shall be subjected to strict observation till the cases are dead or cured ; and the quarantine shall not commence until the day of the death or cure of the last case shall be certified by the person employed for that purpose.

4. Every ship which, after its certificate of health, shall be ascertained to have lost any of her crew on her voyage, shall be liable to the quarantine of ten days.

5. Every ship coming from a place where the plague was raging, but which has had no cases on board, shall perform a quarantine of seven days.

6. Every ship coming from places where the plague has not appeared, and which has had no case on board, shall perform a quarantine of five days.

7. Ships shall perform their quarantine at Gallipoli or the roads at Constantinople, according to the state of the wind, but in every case they shall have a sanatory guard on board from the time of their arrival in the Dardanelles.

8. If during the quarantine any cases of plague shall take place on board, they may be landed with the necessary precautions, and placed in buildings appropriated to that purpose.

9. The sanatory expenses shall be charged to each ship, and calculated according to the scales used in European establishments.

Nothing can exceed the absurdity of these regulations: for instance—Ships from ports where the plague has not appeared, and which have had no case on board, are to perform a quarantine of five days. And this is to be required, I presume, though the plague is raging at Constantinople. But what is very remarkable the regulations only extend to passengers and the ship's crew; for I was informed by Dr. Bowring, that the passengers' baggage and cargo, whether of susceptible materials or not, were landed in his presence without the precautions adopted in other establishments of removing the supposed contagious elements by exposure to the atmosphere.

I had intended in this letter to allude to the effects of quarantine upon merchandise, but as it has already increased much beyond ordinary limits I must reserve this question to a future occasion.

I have thus laid before you, Sir, some of the results of my inquiries and experience into the quarantine regulations in the Levant, and the opinions of eminent medical men upon the subject of the propagation of the plague in Egypt. I have endeavoured to prove to you that nothing can be more unphilosophical in theory, or pernicious in practice than the present sanatory regulations, nothing more groundless than the fears of the contagion of plague. The whole quarantine system is a medley of contradictions, absurdities, and inconsistencies kept up from ignorance or interested motives. I am aware that there is a strong feeling in favour of the present restrictions among such as have not investigated the subject; and nothing is more difficult to combat than the opinions of the prejudiced. I entered Egypt strongly impressed with a belief in the contagious nature of plague; and after a residence of two years there and in Syria, I have not met with a single fact to warrant that belief. On the contrary, I have seen much which now induces me to think that my first opinion was altogether incorrect.

I feel confident if the plague can ever be communicated by contagion, that such communication is extremely rare and an exception to the general rule.

Dr. Bowring, in his excellent pamphlet "on the Oriental

Plague and Quarantines," has suggested to the Government the expediency of sending a "Commission to the Levant, thoroughly to investigate the whole question." Such a measure, besides having the effect of placing quarantine upon a scientific and philosophical basis, would, I am persuaded, end in a material alteration and reduction of its present lengthened period. It would be a boon beyond all price to trade, and as such I cannot but concur heartily in the recommendation.

Trusting therefore, on a subject of such paramount concern to us in our relations with the Eastern World—so important to mankind at large, and to those engaged in commerce particularly—so involving the happiness of all whom private or public interests connect with the Levant—that your powerful aid and influence will be given for the thorough investigation of this most serious question,

I have the honour to remain,

Sir,

Your obedient and humble servant,

ARTHUR T. HOLROYD.

*Athenæum Club, Pall Mall,
January 17, 1839.*

BY THE SAME AUTHOR.

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